Index to Volume 78 **Author Index**

Page numbers of errata are in italic.

Abécassis, J. See J. A. Ingelbrecht, 721

See F. Mabille, 231

Aboubacar, A., J. D. Axtell, C.-P. Huang, and B. R. Hamaker. A rapid protein digestibility assay for identifying highly digestible sorghum lines, 160 Albrect, J. A. See E. S. Osseyi, 375

Alho-Lehto, P. See A. Lapveteläinen, 322

Åman, P. See A. A. M. Anderson, 507

Ames, N. See A. S. Wesley, 69

Andersson, A. A. M., R. Andersson, and P. Aman. Starch and by-products from a laboratory-scale barley starch isolation procedure, 507

Andersson, R. See A. A. M. Anderson, 507

Ando, H. See H. Tang, 111

Antes, S., and H. Wieser. Effects of high and low molecular weight glutenin subunits on rheological dough properties and breadmaking quality of wheat, 157 -. Reoxidation behavior of wheat and rye glutelin subunits, 8

Arendt, E. K. See S. Kenny, 458

Aussenac, T., J.-L. Carceller, and D. Kleiber. Changes in SDS solubility of glutenin polymers during dough mixing and resting, 39 Autio, K., L. Flander, A. Kinnunen, and R. Heinonen. Bread quality relation-

ship with rheological measurements of wheat flour dough, 654

See M. Salmenkallio-Marttila, 429

. See E. Vesterinen, 442 Auty, M. See S. Kenny, 458

Axtell, J. D. See A. Aboubacar, 160

Babatunde Obilana, A. See T. Beta, 583

Bagorogoza, K. See M. Okot-Kotber, 514

Baik, B.-K. See M.-R. Lee, 701

Bamforth, C. W. See M. Kanauchi, 121 Barbeau, W. E. See S. S. Schwarzlaff, 93

Barton, F. E., II. See E. T. Champagne, 358

See D. S. Himmelsbach, 488

Bean, S. R., C. Hicks, M. Tuinstra, and G. L. Lookhart. Use of SDS to extract sorghum and maize proeins for free zone capillary electrophoresis (FZCE) analysis, 84

-, and G. L. Lookhart. Factors influencing the characterization of gluten proteins by size-exclusion chromatography and multiangle laser light scat-

tering (SEC-MALLS), 608

-. Optimizing quantitative reproducibility in high-performance capillary electrophoresis (HPCE) separations of cereal proteins, 530 See C. Hicks, 412

Beasley, H. L., C. L. Blanchard, and F. Bekes. Preparative method for in vitro production of functional polymers from glutenin subunits of wheat, 464

Becker, A., S. E. Hill, and J. R. Mitchell. Milling-A further parameter affecting the Rapid Visco Analyser (RVA) profile, 166

Behall, K. M. See B. W. Li, 387

Bekes, F. See H. L. Beasley, 464

. See S. Uthayakumaran, 138

BeMiller, J. N. See J. A. Gray, 236

. See K. C. Huber, 173

Bergman, C. J., J. T. Delgado, A. M. McClung, and R. G. Fjellstrom. An improved method for using a microsatellite in the rice waxy gene to determine amylose class, 257

Bergman, E.-L., K. Fredlund, P. Reinikainen, and A.-S. Sandberg. Development of predictive models for optimization of phytate degradation in wheat and rye during hydrothermal processing, 144

Beta, T., A. Babatunde Obilana, and H. Corke. Genetic diversity in properties of starch from Zimbabwean sorghum landraces, 583

-, and H. Corke. Noodle quality as related to sorghum starch properties, 417 -, J. R. N. Taylor, and L. W. Rooney. NOTE: Effect of steeping treatment on pasting and thermal properties of sorghum starches, 303

Betschart, A. A. See T. S. Kahlon, 481

See E. T. Champagne, 358

Bett-Garber, K. L., E. T. Champagne, A. M. McClung, K. A. Moldenhauer, S. D. Linscombe, and K. S. McKenzie. Categorizing rice cultivars based on cluster analysis of amylose content, protein content, and sensory attributes,

-. See E. T. Champagne, 358

Bietz, J. A. See J. Xu, 181

Blackwell, E. L. See B. W. Li, 387

Blanchard, C. L. See H. L. Beasley, 464

Bloch, H. A., H. F. Darlington, and P. R. Shewry. In vitro binding of puroindolines to wheat starch granules, 74

Blundell, M. J. See M. A. K. Partridge, 294

Borras, F. See K. Seetharaman, 379

Boykin, D. See R. J. Bryant, 131

Brannan, G. L., C. S. Setser, K. E. Kemp, P. A. Seib, and K. Roozeboom. Sensory characteristics of grain sorghum hybrids with potential for use in human food, 693

Brinck, O. See M. Mikola, 55

Brites, C., and J. M. Carrillo. Influence of high molecular weight (HMW) and low molecular weight (LMW) glutenin subunits controlled by Glu-1 and Glu-3 loci on durum wheat quality, 59

Brown, D. See A. S. Wesley, 69

Brumovsky, J. O., and D. B. Thompson. Production of boiling-stable granular resistant starch by partial acid hydrolysis and hydrothermal treatments of high-amylose maize starch, 680

Bryant, R. J., R. S. Kadan, E. T. Champagne, B. T. Vinyard, and D. Boykin. Functional and digestive characteristics of extruded rice flour, 131

Büchmann, N. B., H. Josefsson, and I. A. Cowe. Performance of European artificial neural network (ANN) calibrations for moisture and protein in cereals using the Danish near-infrared transmission (NIT) network, 572

Budde, A. D. See D. M. Peterson, 349

Buendia, M. O. See D. Sahai, 14, 116 Bugusu, B. A., O. Campanella, and B. R. Hamaker. Improvement of sorghumwheat composite dough rheological properties and breadmaking quality through zein addition, 31

Buriak, P. See S. K. Mehra, 210

. See Y. Tian, 578

Busch, K. G. See F. Meuser, 50

Caley, M. S. See O. K. Chung, 493

Campanella, O. See B. A. Bugusu, 31

Campbell, G. M., R. Herrero-Sanchez, R. Payo-Rodriguez, and M. L. Merchant. Measurement of dynamic dough density and effect of surfactants and flour type on aeration during mixing and gas retention during proofing, 272

Cao, T. K. See G. H. Robertson, 538

Carceller, J.-L. See T. Aussenac, 39 Carriere, C. J. See G. E. Inglett, 471

See J. Xu, 181

Carrillo, J. M. See C. Brites, 59

Carson, L., and X. S. Sun. Creep-recovery of bread and correlation to sensory measurements of textural attributes, 101

Carvalho, C. W. P., and J. R. Mitchell. Effect of sucrose on starch conversion and glass transition of nonexpanded maize and wheat extrudates, 342

Cerletti, P. See E. Sironi, 476

Champagne, E. T., K. L. Bett-Garber, C. C. Grimm, A. M. McClung, K. A. Moldenhauer, S. Linscombe, K. S. McKenzie, and F. E. Barton II. Nearinfrared reflectance analysis for prediction of cooked rice texture, 358

See K. L. Bett-Garber, 551

See R. J. Bryant, 131 See D. S. Himmelsbach, 488

Chen, C.-M., and A.-I. Yeh. Effect of amylose content on expansion of extruded

rice pellet, 261 Cheryan, M. See K. D. Rane, 400

Cho, S. C. See J. K. Jang, 186

Chong, C. K. See D. L. Phillips, 629

Chow, F. I. See T. S. Kahlon, 481

Chung, D. S. See D. Wang, 25

Chung, O. K., J. B. Ohm, M. S. Caley, and B. W. Seabourn. Prediction of baking characteristics of hard winter wheat flours using computer-analyzed mixograph parameters, 493

Colucci, F. See P. Novaro, 217

Conde-Petit, B. See S. Hug-Iten, 421

Cooke, P. H. See V. Singh, 436

Corke, H. See T. Beta, 303, 417, 583

-. See D. L. Phillips, 629

-. See Y. Tan, 666

Courtin, C. M., G. G. Gelders, and J. A. Delcour. Use of two endoxylanases with different substrate selectivity for understanding arabinoxylan functionality in wheat flour breadmaking, 564

Cowe, I. A. See N. B. Büchmann, 572

D'Appolonia, B. L. See S. V. Erazo-Castrejón, 243

Darlington, H. F. See H. A. Bloch, 74 Debyser, W. See H. Goesaert, 453

D'Egidio, M. G. See P. Novaro, 217

de la Luz Martínez, J. See R. Martínez, 107

Delcour, J. A. See C. M. Courtin, 564

-. See H. Goesaert, 453 . See J. A. Ingelbrecht, 721

Delgado, J. T. See C. J. Bergman, 257

Delwiche, S. R. See B. G. Osborne, 142

Dillahunty, A. L., T. J. Siebenmorgen, and A. Mauromoustakos. Effect of temperature, exposure duration, and moisture content on color and viscosity of rice, 559

Dimberg, L. H., K. Sunnerheim, B. Sundberg, and K. Walsh. Stability of oat avenanthramides, 278

Djuric, V. See N. Mladenov, 363

Doehlert, D. C., and M. S. McMullen. Optimizing conditions for experimental oat dehulling, 675

-. See C. M. Courtin, 564

-. See S. V. Erazo-Castrejón, 243

-. See L. A. Grant, 590

. See J. A. Ingelbrecht, 721

Donald, A. M. Review: Plasticization and self assembly in the starch granule,

Donelson, J. R., C. S. Gaines, T. S. Donelson, and P. L. Finney. Detection of wheat preharvest sprouting using a pregelatinized starch substrate and centrifugation, 282

Donelson, T. S. See J. R. Donelson, 282

Doner, L. W., and D. B. Johnston. Isolation and characterization of cellulose/ arabinoxylan residual mixtures from corn fiber gum processes, 200

Dowell, F. E. See D. Wang, 25

Eckhoff, S. R. See S. K. Mehra, 210, 222

See V. Singh, 46

See Y. Tian, 578

Elias, E. M. See L. A. Grant, 590 Eliasson, A.-C. See A. Repeckiene, 193

Erazo-Castrejón, S. V., D. C. Doehlert, and B. L. D'Appolonia. Application of oat oil in breadbaking, 243

Escher, F. See S. Hug-Iten, 421

Felker, F. C. See J. Xu, 181

Ferrer, M. See K. Seetharaman, 379

Finney, P. L. Effects of falling number sample weight on prediction of αamylase activity, 485

. See J. R. Donelson, 282

Fjellstrom, R. G. See C. J. Bergman, 257

Flander, L. See K. Autio, 654

Flores, R. A. See Y. Mao. 286

Fredlund, K. See E.-L. Bergman, 144

Fuhrmeister, H. See F. Meuser, 50

Gaines, C. S. See J. R. Donelson, 282

Gebruers, K. See H. Goesaert, 453

Gelders, G. G. See C. M. Courtin, 564

Gélinas, P. See M. Mercier, 36

Gianibelli, M. C., O. R. Larroque, F. MacRitchie, and C. W. Wrigley. REVIEW: Biochemical, genetic, and molecular characterization of wheat glutenin and its component subunit, 635

-. See S. Uthayakumaran, 138

Goesaert, H., W. Debyser, K. Gebruers, P. Proost, J. Van Damme, and J. A. Delcour. Purification and partial characterization of an endoxylanase inhibitor from barley, 453

Gómez-Aldapa, C. A. See J. F. Toro-Vazquez, 543

Gordon, M. H. See E. Papantoniou, 663

Grant, L. A., N. Vignaux, D. C. Doehlert, M. S. McMullen, E. M. Elias, and S. Kianian. Starch characteristics of waxy and nonwaxy tetraploid (Triticum turgidum) L. var. durum) wheats, 590

See P. J. Lent, 619

Gray, J. A., and J. N. BeMiller. Accessibility of starch granules to fatty acid amides, 236

Griffey, C. A. See S. S. Schwarzlaff, 93

Griffin, V. K. See A. A. Perdon, 205

Gril, J. See F. Mabille, 231

Grimm, C. C. See E. T. Champagne, 358

Guerrieri, N. See E. Sironi, 476

Gunasekaran, S. See C. H. Hwang, 88

Gunnarsson, E. See A. Repeckiene, 193 Gupta, D. K. See S. K. Mehra, 210

Hamaker, B. R. See A. Aboubacar, 160

. See B. A. Bugusu, 31

Hammond, E. W. See E. Papantoniou, 663

Haque, E. See M. C. Pasikatan, 730

Hareland, G. A. See F. A. Manthey, 368

Heiniö, R.-L., K.-M. Oksman-Caldentey, K. Latva-Kala, P. Lehtinen, and K. Poutanen. Effect of drying treatment conditions on sensory profile of germinated oat, 707

Heinonen, R. See K. Autio, 654

Henson, C. A. See D. M. Peterson, 349

Herald, T. J. See E. Obuz, 97

Herrero-Sanchez, R. See G. M. Campbell, 272

Hicks, C., S. R. Bean, G. L. Lookhart, J. F. Pedersen, K. D. Kofoid, and M. R. Tuinstra. Genetic analysis of kafirins and their phenotypic correlations with feed quality traits, in vitro digestibility, and seed weight in grain sorghum, 412

See S. R. Bean, 84

Hicks, K. B. See V. Singh, 46

Hill, A. S. See M. A. K. Partridge, 294

Hill, S. E. See A. Becker, 166

Himmelsbach, D. S., F. E. Barton, II, A. M. McClung, and E. T. Champagne. Protein and apparent amylose contents of milled rice by NIR-FT/Raman spectroscopy, 488

Hoefer, J. L. See T. S. Kahlon, 481

Hristov, N. See N. Mladenov, 363

Hsam, S. L. K., R. Kieffer, and F. J. Zeller. Significance of Aegilops tauschii glutenin genes on breadmaking properties of wheat, 521

Huang, C.-P. See A. Aboubacar, 160

Huber, K. C., and J. N. BeMiller. Location of sites of reaction within starch granules, 173

Hug-Iten, S., F. Escher, and B. Conde-Petit. Structural properties of starch in bread and bread model systems: Influence of an antistaling α-amylase, 421 Hurburgh, C. R. See S. K. Singh, 330, 336

Hwang, C. H., and S. Gunasekaran. Determining wheat dough mixing characteristics from power consumption profile of a conventional mixer, 88

Ingelbrecht, J. A., K. Moers, J. Abécassis, X. Rouau, and J. A. Delcour. Influence of arabinoxylans and endoxylanases on pasta processing and quality: I. Production of high-quality pasta with increased levels of soluble fiber, 721

Inglett, G. E., and C. J. Carriere. Cellulosic fiber gels prepared from cell walls of maize hulls, 471

Jackson, D. S. See D. Sahai, 14, 116

Jackson, R. See B. G. Osborne, 142

Jane, J.-L. See C. Perera, 249

. See S. K. Singh, 315

Jang, J. K., S. H. Lee, S. C. Cho, and Y. R. Pvun. Effect of sucrose on glass transition, gelatinization, and retrogradation of wheat starch, 186

Johansson, E., M. L. Prieto-Linde, and J. Ö. Jönsson. Effects of wheat cultivar and nitrogen application on storage protein composition and breadmaking quality, 19

Johnson, E. R. See A. A. Perdon, 205

Johnson, J. M. See S. S. Schwarzlaff, 93

Johnson, L. A. See S. K. Singh, 315, 330, 336

Johnston, D. B., and V. Singh. Use of proteases to reduce steep time and SO2 requirements in a corn wet-milling process, 405

See L. W. Doner, 300

Jones, B.-L. See M. Mikola, 55 See D. M. Peterson, 349

Jönsson, J. Ö. See E. Johansson, 19

Josefsson, H. See N. B. Büchmann, 572 Juliano, B. O. See V. M. F. Lai, 596

Juodeikiene, G., See A. Repeckiene, 193

Kadan, R. S. See R. J. Bryant, 131

Kahlon, T. S., F. I. Chow, J. L. Hoefer, and A. A. Betschart. Effect of wheat bran fiber and bran particle size on fat and fiber digestibility and gastrointestinal trace measurements in the rat, 481

Kaitaranta, J. See A. Lapveteläinen, 322

Kallio, H. See A. Lapveteläinen, 322

Kanauchi, M., and C. W. Barnforth. Release of β-glucan from cell walls of starchy endosperm of barley, 121

Karakatsanis, A. See M. Liakopoulou-Kyriakides, 603

Katajisto, J. See A. Lapveteläinen, 322

Katina, K. See M. Salmenkallio-Marttila, 429

Kaukovirta-Norja, A. See A. Wilhelmson, 715

Kemp, K. E. See G. L. Brannan, 693

Kenny, S., K. Wehrle, M. Auty, and E. K. Arendt. Influence of sodium caseinate and whey protein on baking properties and rheology of frozen dough, 458

Khan, K. See J. Zhu, 125, 737 Kianian, S. See L. A. Grant, 590

Kieffer, R. See S. L. K. Hsam, 521

Kim, H. Y. L., H. W. Yeom, H. S. Lim, and S.-T. Lim. Replacement of shortening in yellow layer cakes by corn dextrins, 267

Kim, K. O. See J. K. Park, 151

Kim, S. S. See J. K. Park, 151

Kinnunen, A. See K. Autio, 654

Kleiber, D. See T. Aussenac, 39

Kofoid, K. D. See C. Hicks, 412

Kokini, J. L. See I. A. Lambert, 226

Köksel, H., Sivri, D., Ng, P. K. W., and J. F. Steffe. Effects of transglutaminase enzyme on fundamental rheological properties of sound and bugdamaged wheat flour doughs, 26

Lafiandra, D. See F. MacRitchie, 501

Lai, V. M. F., M.-C. Shen, A.-I Yeh, B. O. Juliano, and C. Lii. Molecular and gelatinization properties of rice starches from IR24 and Sinandomeng cultivars 596

Laitila, A. See A. Wilhelmson, 715

Lam, H. S., and A. Proctor. Note: Rapid methods for milled rice surface total lipid and free fatty acid determination, 498

Lambert, I. A., and J. L. Kokini. Effect of L-cysteine on the rheological properties of wheat flour, 226

Lapveteläinen, A., P. Alho-Lehto, L. Sinn, T. Laukkanen, T. Lindman, H. Kallio, J. Kaitaranta, and J. Katajisto. Relationships of selected physical, chemical, and sensory parameters in oat grain, rolled oats, and cooked oatmeal-A threeyear study with eight cultivars, 322

Larroque, O. R. See M. C. Gianibelli, 635

Latva-Kala, K. See R.-L. Heiniö, 707

Laukkanen, T. See A. Lapveteläinen, 322

Lee, L., P. K. W. Ng, J. H. Whallon, and J. F. Steffe. Relationship betwen rheological properties and microstructural characteristics of nondeveloped, partially developed, and developed doughs, 447

Lee, M.-R., B. G. Swanson, and B.-K. Baik. Influence of amylose content on properties of wheat starch and breadmaking quality of starch and gluten blends, 701

Lee, S. H. See J. K. Jang, 186

Lehtinen, P. See R.-L. Heiniö, 707

Lent, P. J., and L. A. Grant. Effects of additives and storage temperature on staling properties of bagels, 619

Li, B. W., E. L. Blackwell, K. M. Behall, and H. G. M. Liljeberg Elmståhl. Resistant starch and total dietary fiber content of oatrim muffins with different levels of amylose, amylopectin, and β-glucan, 387

Liakopoulou-Kyriakides, M., A. Karakatsanis, M. Stamatoudis, and S. Psomas. Synergistic hyrolysis of crude corn starch by α-amylases and glucoamylases of various origins, 603

Liavoga, A. See M. Okot-Kotber, 514

Lii, C. See V. M. F. Lai, 596

Lii, C. See Y. Lin, 647

Liljeberg Elmståhl, H. G. M. See B. W. Li, 387

Lim, H. S. See H. Y. L. Kim, 267

Lim, S.-T. See H. Y. L. Kim, 267

Lin, Y., A.-I Yeh, and C. Lii. Correlation between starch retrogradation and water mobility as determined by differential scanning calorimetry and NMR,

Lindman, T. See A. Lapveteläinen, 322

Linscombe, S. D. See K. L. Bett-Garber, 551

See E. T. Champagne, 358

Lookhart, G. L. See S. R. Bean, 84, 530, 608

See C. Hicks, 412

Lu, Z. See C. Perera, 249

Lukow, O. M. See A. S. Wesley, 69

Mabille, F., J. Gril, and J. Abecassis. Mechanical properties of wheat seed coats,

MacRitchie, F., and D. Lafiandra. Review: Use of near-isogenic wheat lines to determine protein composition-functionality relationships, 501

. See M. C. Gianibelli, 635

See H. Singh, 526

Manthey, F. A., and G. A. Hareland. Effects of break-roll differential on semolina and spaghetti quality, 368

Mao, Y., and R. A. Flores. Mechanical starch damage effects on wheat flour tortilla texture, 286

See M. D. Pearce, 354

Martínez, J. de la Luz. See R. Martínez, 107

Martínez, R., S. Mendoza, E. Reguera, P. Ortiz, and J. de la Luz Martínez. Kinetic approach to nixtamalization of corn pericarp, 107

Mauromoustakos, A. See A. L. Dillahunty, 559

See A. A. Perdon, 205

McClung, A. M. See C. J. Bergman, 257

See K. L. Bett-Garber, 551

-. See E. T. Champagne, 358

See D. S. Himmelsbach, 488

McKenzie, K. S. See K. L. Bett-Garber, 551

See E. T. Champagne, 358

McKenzie, R. I. H. See A. S. Wesley, 69

McMullen, M. S. See D. C. Doehlert, 675

See L. A. Grant, 590

Mehra, S. K., and S. R. Eckhoff. Influence of temper duration and weight distance on system output in the corn dry-milling process, 222

Mehra, S. K., D. K. Gupta, P. Buriak, M. E. Tumbleson, and S. R. Eckhoff. Effect of maize tempering on throughput and product yields, 210

Mendoza, S. See R. Martínez, 107

Merchan, M. L. See G. M. Campbell, 272

Mercier, M., and P. Gélinas. Effect of lipid oxidation on dough bleaching, 36 See M. D. Pearce, 354

C. See C. Sitakalin, 391

Meuser, F., K. G. Busch, H. Fuhrmeister, H., and K. Rubach. Foam-forming capacity of substances present in rye, 50

Mikola, M., O. Brinck, and B.-L. Jones. Characterization of oat endoproteinases that hydrolyze oat avenins, 55

Milliken, G. M. See M. C. Pasikatan, 730

Milovanovic, M. See N. Mladenov, 363

Mitchell, J. R. See A. Becker, 166

. See C. W. P. Carvalho, 342

Mitsunaga, T. See H. Tang, 111

Mladenov, N., N. Przulj, N. Hristov, V. Djuric, and M. Milovanovic. Cultivarenvironment interactions for wheat quality traits in semiarid conditions, 363

Moers, K. See J. A. Ingelbrecht, 721

Moldenhauer, K. A. See K. L. Bett-Garber, 551

-. See E. T. Champagne, 358

Moreau, R. A. See V. Singh, 46, 436 Mua, J. P. See D. Sahai, 116

Nakamura, H. N-terminal amino acid sequence analysis of endosperm proteins in Japanese hexaploid wheat, 79

Ng, P. K. W. See H. Köksel, 26

. See L. Lee, 447

Noda, T., T. Tohnooka, S. Taya, and I. Suda. Relationship between physicochemical properties of starches and white salted noodle quality in Japanese wheat flours, 395

Novaro, P., F. Colucci, G. Venora, and M. G. D'Egidio. Image analysis of whole grains: A noninvasive method to predict semolina yield in durum wheat, 217

Obuz, E., T. J. Herald, and K. Rausch. Characterization of extruded plant protein and petroleum-based packaging sheets, 97

Ohm, J. B. See O. K. Chung, 493

Okot-Kotber, M., A. Liavoga, K.-J. Yong, and K. Bagorogoza. Activity and inhibition of polyphenol oxidase in extracts of bran and other milling fractions from a variety of wheat cultivars, 514

Oksman-Caldentey, K.-M. See R.-L. Heiniö, 707

See A. Wilhelmson, 715

Ortiz, P. See R. Martínez, 107

Osborne, B. G., R. Jackson, and S. R. Delwiche. Note: Rapid prediction of wheat endosperm compressive strength properties using the single-kernel characterization system, 142

Osguthorpe, D. J. See O. Parchment, 658

Osseyi, E. S., R. L. Wehling, and J. A. Albrecht. HPLC determination of stability and distribution of added folic acid and some endogenous folates during breadmaking, 375

Papantoniou, E., E. W. Hammond, F. Scriven, M. H. Gordon, and J. D. Schofield. Isolation of polar lipid classes from wheat flour extracts by preparative high-performance liquid chromatography, 663

Parchment, O., P. R. Shewry, A. S. Tatham, and D. J. Osguthorpe. Molecular modeling of an unusual spiral structure present in an elastomeric wheat

seed protein, 658

Park, J. K., S. S. Kim, and K. O. Kim. Effect of milling ratio on sensory properties of cooked rice and on physiocochemical properties of milled and cooked rice, 151

Partridge, M. A. K., A. S. Hill, M. J. Blundell, and J. H. Skerritt. Two-site sandwich ELISA for discriminating different Gli-1 (gliadin)/Glu-3 (LMWglutenin subunit) alleles in hexaploid wheat, 294

Pasikatan, M. C., E. Haque, J. L. Steele, C. K. Spillman, and G. M. Milliken. Evaluation of a near-infrared reflectance spectrometer as a granulation sensor for first-break ground wheat: Studies with six wheat classes, 730

Payo-Rodriguez, R. See G. M. Campbell, 372

Pearce, M. D., B. P. Marks, and J.-F. Meullenet. Effects of postharvest parameters on functional changes during rough rice storage, 354

Pedersen, J. F. See C. Hicks, 412

Perdon, A. A., T. J. Siebenmorgen, A. Mauromoustakos, V. K. Griffin, and E. R. Johnson. Degree of milling effects on rice pasting properties, 205

Perera, C., Z. Lu, J. Sell, and J. Jane. Comparison of physicochemical properties and structures of sugary-2 cornstarch with normal and waxy cultivars, 249

Peterson, D. M., A. D. Budde, C. A. Henson, and B. L. Jones. Detecting corn syrup in barley malt extracts, 349

Phillips, D. L., J. Xing, C. K. Chong, and H. Corke. Note: Quantitative analysis of benzyl modification in waxy maize starch by Fourier Transform (FT) Raman spectroscopy, 629

Pollak, L. M. See S. K. Singh, 315, 330, 336

Poutanen, K. See R.-L. Heiniö, 707

. See A. Wilhelmson, 715

Prieto-Linde, M. L. See E. Johansson, 19

Proctor, A. See H. S. Lam, 498 Proost, P. See H. Goesaert, 453

Przulj, N. See N. Mladenov, 363

Psomas, S. See M. Liakopoulou-Kyriakides, 603

Pyun, Y. R. See J. K. Jang, 186

Rane, K. D., and M. Cheryan. Membrane filtration of corn steep water, 400 Rausch, K. See E. Obuz, 97

Reguera, E. See R. Martínez, 107

Reinikainen, P. See E.-L. Bergman, 144

Repeckiene, A., A.-C. Eliasson, G. Juodeikiene, and E. Gunnarsson. Predicting baking performance from rheological and adhesive properties of rye meal suspensions during heating, 193

Robertson, G. H., and T. K. Cao. Farinograph responses for wheat flour dough fortified with wheat gluten produced by cold-ethanol or water displacement of starch, 538

Robutti, J. See K. Seetharaman, 379

Rooney, L. W. See T. Beta, 303

Roozeboom, K. See G. L. Brannan, 693

Rouau, X. See J. A. Ingelbrecht, 721

Rowe, M. See D. Sahai, 116

Rubach, K. See F. Meuser, 50

Sahai, D., M. O. Buendia, and D. S. Jackson. Analytical techniques for understanding nixtamalized corn flour: Particle size and functionality relationships in a masa flour sample, 14

J. P. Mua, I. Surjewan, M. O. Buendia, M. Rowe, and D. S. Jackson. Alkaline processing (nixtamalization) of white Mexican corn hybrids for tortilla production: Significance of corn physicochemical characteristics and process conditions, 116

Salmenkallio-Marttila, M., K. Katina, and K. Autio. Effects of bran fermentation on quality and microstructure of high-fiber wheat bread, 429

Sandberg, A.-S. See E.-L. Bergman, 144

-. See M. C. Zghal, 1

Savage, A. W. J. See S. Uthayakumaran, 138

Scanlon, M. G. See M. C. Zghal, 1

Schofield, J. D. See E. Papantoniou, 663

Schwarzlaff, S. S., M. G. Uriyo, J. M. Johnson, W. E. Barbeau, and C. A. Griffey. Apparent dough stickiness of selected 1BL/1RS translocated soft wheat flours, 93

Scriven, F. See E. Papantoniou, 663 Seabourn, B. W. See O. K. Chung, 493

Seetharaman, K., A. Tziotis, F. Borras, P. J. White, M. Ferrer, and J. Robutti. Thermal and functional characterization of starch from Argentinean corn, 379

Seib, P. A. See G. L. Brannan, 693

Sell, J. See C. Perera, 249

Setser, C. S. See G. L. Brannan, 693

Shen, M.-C. See V. M. F. Lai, 596

Shewry, P. R. See H. A. Bloch, 74

See O. Parchment, 658

Siebenmorgen, T. J. See A. L. Dillahunty, 559

-. See A. A. Perdon, 205

Singh, H., and F. MacRitchie. Use of sonication to probe wheat gluten structure,

Singh, S. K., L. A. Johnson, L. M. Pollak, and C. R. Hurburgh. Compositional, physical, and wet-milling properties of accessions used in Germplasm Enhancement of Maize project, 330

-. Heterosis in compositional, physical, and wet--, and milling properties of adapted × exotic corn crosses, 336

, P. J. White, J.-L. Jane, and L. M. Pollak. Thermal properties and paste and gel behaviors of starches recovered from accessions used in the Germplasm Enhancement of Maize project, 315

Singh, V., R. A. Moreau, and P. H. Cooke. Effect of corn milling practices on aleurone layer cells and their unique phytosterols, 436

, K. B. Hicks, and S. R. Eckhoff. Effect of alternative milling techniques on the yield and composition of corn germ oil and corn fiber oil, 46

-. See D. B. Johnston, 405

Sinn, L. See A. Lapveteläinen, 322

Sironi, E., N. Guerrieri, and P. Cerletti. Surface properties of gluten investigated by a fluorescence approach, 476

Sitakalin, C., and J.-F. C. Meullenet. Prediction of cooked rice texture using an extrusion test in combination with partial least squares regression and artificial neural networks, 391

See H. Köksel. 26

Skerritt, J. H. See M. A. K. Partridge, 294

Spillman, C. K. See M. C. Pasikatan, 730

Stamatoudis, M. See M. Liakopoulou-Kyriakides, 603

Steele, J. L. See M. C. Pasikatan, 730

Steffe, J. F. See H. Köksel, 26

See L. Lee, 447

Stoddard, F. L. See S. Uthayakumaran, 138

Suda, I. See T. Noda, 395

Sun, M. See Y. Tan, 666

Sun, X. S. See L. Carson, 101

Sundberg, B. See L. H. Dimberg, 278

Sunnerheim, K. See L. H. Dimberg, 278

Suortti, T. See E. Vesterinen, 442

-. See A. Wilhelmson, 715

Surjewam, I. See D. Sahai, 116

Swanson, B. G. See M.-R. Lee, 701

Takeda, Y. See H. Tang, 111

Tan, Y., Y. Xing, Q. Zhang, M. Sun, and H. Corke. Quantitative genetic basis of gelatinization temperature of rice, 666

Tang, H., H. Ando, K. Watanabe, Y. Takeda, and T. Mitsunaga. Fine structures of amylose and amylopectin from large, medium, and small waxy barley starch granules, 111

Tatham, A. S. See O. Parchment, 658

See S. Uthayakumaran, 138

Taya, S. See T. Noda, 395

Taylor, J. R. N. See T. Beta, 303

Thompson, D. B. See J. O. Brumovsky, 680

Tian, Y., P. Buriak, and S. R. Eckhoff. Effect of hybrid and physical properties of individual popcorn kernels on expansion volume, 578

Tohnooka, T. See T. Noda, 395

Tömösközi, S. See S. Uthayakumaran, 138

Toro-Vazquez, J. F., and C. A. Gómez-Aldapa. Chemical and physicochemical properties of maize starch after industrial nixtamalization, 543

Tuinstra, M. R. See S. R. Bean, 84

See C. Hicks, 412

Tumbleson, M. E. See S. K. Mehra, 210

Tziotis, A. See K. Seetharaman, 379

Uriyo, M. G. See S. S. Schwarzlaff, 93

Uthayakumaran, S., S. Tömösközi, A. S. Tatham, A. W. J. Savage, M. C. Gianibelli, F. L. Stoddard, and F. Bekes. RAPID COMMUNICATION: Effects of gliadin fractions on functional properties of wheat dough depending on molecular size and hydrophobicity, 138

Van Damme, J. See H. Goesaert, 453

Venora, G. See P. Novaro, 217

Vesterinen, E., T. Suortti, and K. Autio. Effects of preparation temperature on gelation properties and molecular structure of high-amylose maize starch,

Vignaux, N. See L. A. Grant, 590

Vinyard, B. T. See R. J. Bryant, 131

Walsh, K. See L. H. Dimberg, 278

Wang, D., F. E. Dowell, and D. S. Chung. Assessment of heat-damaged wheat kernel using near-infrared spectroscopy, 625

Wang, L., and Y.-J. Wang. Note: Comparison of protease digestion at neutral pH with alkaline steeping method for rice starch isolation, 690

Wang, Y.-J. See L. Wang, 690 Watanabe, K. See H. Tang, 111

Wehling, R. L. See E. S. Osseyi, 375

Wehrle, K. See S. Kenny, 458

Wesley, A. S., O. M. Lukow, R. I. H. McKenzie, N. Ames, and D. Brown. Effect of multiple substitution of glutenin and gliadin proteins on flour quality of Canada Prairie Spring wheat, 69

Whallon, J. H. See L. Lee, 447

White, P. J. See K. Seetharaman, 379
——. See S. K. Singh, 315

—. See S. K. Singn, 315 Wieser, H. See S. Antes, 8, 157

Wilhelmson, A., K.-M. Oksman-Caldentey, A. Laitila, T. Suortti, A. Kaukovirta-Norja, and K. Poutanen. Development of a germination process for producing high β-glucan, whole grain food ingredients from oat, 715

Willett, J. L. Packing characteristics of starch granules, 64

Wirtz, D. See J. Xu, 181

Wrigley, C. W. See M. C. Gianibelli, 635

Xing, J. See D. L. Phillips, 629

Xing, Y. See Y. Tan, 666

Xu, J., J. A. Bietz, F. C. Felker, C. J. Carriere, and D. Wirtz. Rheological properties of vital wheat gluten suspensions, 181

Yeh, A.-I. See C.-M. Chen, 261

---. See Y. Lin, 647

Yeom, H. W. See H. Y. L. Kim, 267

Yong, K.-J. See M. Okot-Kotber, 514

Zeller, F. J. See S. L. K. Hsam, 521

Zghal, M. C., M. G. Scanlon, and H. D. Sapirstein. Effects of flour strength, baking absorption, and processing conditions on the structure and mechanical properties of bread crumb, 1

Zhang, Q. See Y. Tan, 666

Zhu, J., and K. Khan. Effects of genotype and environment on glutenin polymers and breadmaking quality, 125

—, and ——. Separation and quantification of HMW glutenin subunits by capillary electrophoresis, 737

Subject Index

Page numbers of errata are in italic.

Alkaline, steeping method; rice starch isolation, protease digestion at neutral pH compared (Wang and Wang), 690

Amino acid, sequencing; of Japanese hexaploid wheat (Nakamura), 79 α -Amylase

-activity; prediction affected by falling number sample weight (Finney), 485

-antistaling effect in bread and bread models (Hug-Iten et al), 421

—synergistic hydrolysis of corn starch by (Liakopoulou-Kyriakides et al), 603
 Amylopectin

—fine structures of, from waxy barley starch granules (Tang et al), 111

-plasticization of side chains (Donald), 307

Amylose

content; effect on expansion of extruded rice pellet (Chen and Yeh), 261
 content of milled rice; by NIR-FT/Raman spectroscopy (Himmelsbach et

—fine structures of, from waxy barley starch granules (Tang et al), 111

—influence on wheat starch properties and breadmaking quality of starch and gluten blends (Lee et al), 701

Antioxidants, avenanthramides, p-coumaric, ferulic and caffeic acids (Dimberg et al), 278

Arabinoxylans

—functionality; in breadmaking (Courtin et al), 564

-influence on pasta processing and quality (Ingelbrecht et al), 721

Artificial neural network

—major calibration technique used for determination of moisture and protein in cereals (Büchmann et al), 572

—prediction using extrusion test with partial least squares regression to predict cooked rice texture (Sitakalin and Meullenet), 391

Avenanthramides, stability of (Dimberg et al), 278

Baking

—bagels; effect of additives and storage temperature on staling properties (Lent and Grant), 619

bread; application of oat oil in (Erazo-Castrejón et al), 243
 bread; microscale, protein additives (Antes and Wieser), 157

--characteristics; HWW flours using computer-analyzed mixograph parameters (Chung et al), 493

-micro-baking test (Hsam et al), 521

—properties of frozen dough; influence of sodium caseinate and whey protein (Kenny et al), 458

-rye bread (Repeckiene et al), 193

Barley

-cell walls; solubilization of material from (Kanauchi and Bamforth), 121

-malt extract; corn syrup detection in (Peterson et al), 349

—purification and characterization of an endoxylanase inhibitor (Goesaert et al), 453

—starch isolation by-products; from a starch isolation procedure (Andersson et al), 507

-waxy starches; fine structures of (Tang et al), 111

Bran

-fermentation; effect on quality and microstructure of high-fiber wheat bread

(Salmenkallio-Marttila et al), 429

—fiber; cellulose/arabinoxylan mixtures from (Doner and Johnston), 200 Bread

-baking; application of oat oil in (Erazo-Castrejón et al), 243

 creep-recovery of, correlation to sensory measurements of textural attributes (Carson and Sun), 101

-crumb grain; effect on mechnical properties (Zghal et al), 1

—high-fiber wheat, bran fermentation effect on quality and microstructure (Salmenkallio-Marttila et al), 429

-influence of α-amylase on staling (Hug-Iten et al), 421

—quality related to rheological measurements of wheat flour dough (Autio et al), 654

-retention of avenanthramides in (Dimberg et al), 278

-surfactant effect on aeration and measurement of proofing rate (Campbell et al), 272

-volume; effect of gluten proteins (Antes and Wieser), 157

Breadmaking

—changes in folate levels during bread production (Osseyi et al), 375

-effect of environment on quality (Zhu and Khan), 125

—effect of gliadin on breadmaking (Uthayakumaran et al), 138

functionality of arabinoxylans and endoxylanases (Courtin et al), 564
 quality of starch and gluten blends; influence of amylose content on (Lee et al), 701

-significance Aegilops tauschii genes (Hsam et al), 521

-wheat cultivar and nitrogen application effects on (Johansson et al), 19

Cake, yellow layer, shortening replacement in, by corn dextrins (Kim et al), 267

Cell walls, enzymolysis of (Kanauchi and Bamforth), 121

Cellulose/arabinoxylan mixture, water binding (Doner and Johnston), 200

Chromatography, size exclusion, reoxidized proteins (Antes and Wieser), 8 Computer modeling, of spiral structure in elastomeric wheat seed protein

(Parchment et al), 658 Corn (see also Maize)

 crosses; heterosis in compositional, physical, and wet-milling properties of (Singh et al), 336

-dextrins; shortening replacement in yellow layer cakes (Kim et al), 267

 dry-milling; influence of temper duration and weight distance on system output in (Mehra and Eckhoff), 222

-fiber; cellulose/arabinoxylan mixtures from (Doner and Johnston), 200

—germ and fiber oils; alternative milling technique effect on yield and composition of (Singh et al), 46

—masa flour; analytical techniques for understanding particle size and functionality relationships (Sahai et al), 14

-pericarp; corn hull, first supplement of dietary fibers in (Martínez et al), 107

processing; nixtamalization of white Mexican corn hybrids for tortilla production (Sahai et al), 116

-steep water; membrane filtration of (Rane and Cheryan), 400

-thermal and functional properties of starch from Argentinean corn (Seetharaman et al), 379

- —wet-milling; effect on aleurone layer cells and their phytosterols (Singh et al), 436
- —wet-milling; proteases to reduce steep time and SO, requirements (Johnston and Singh), 405

Corn starch

- —enzymic hydrolysis of, synergistic action of α -amylases and glucoamylases (Liakopoulou-Kyriakides et al), 603
- —high-amylose, preparation temperature effect on gelation and molecular structure of (Vesterinen et al), 442
- —physicochemical property and structure comparison with normal and waxy cultivars (Perera et al), 249

Cultivar

- by environment interactions for wheat quality traits in semiarid conditions (Mladenov et al), 363
- —normal and waxy, comparison with physicochemical properties and structures (Perera et al), 249
- -variation; effect on storage protein composition and breadmaking quality (Johansson et al), 19
- -and year effects; parameter relationships (Lapveteläinen et al), 322
- L-Cysteine, effect on rheological properties of wheat flour (Lambert and Kokini), 226

Dehulling, of oats; optimizing conditions for (Doehlert and McMullen), 675 Differential scanning calorimetry, to determine correlation between starch retrogradation and water mobility (Lin et al), 647

Digestibility, rapid assay to identify high protein digestibility lines (Aboubacar et al), 160

Dough

- -bleaching and lipid oxidation (Mercier and Gélinas), 36
- characteristics; prediction of baking characteristics of HWW flours using computer-analyzed mixograph parameters (Chung et al), 493
- —characterization from power consumption profile of a conventional mixer (Hwang and Gunasekaran), 88
- -density measurement and proofing rates (Campbell et al), 272
- -effect of environment on properties (Zhu and Khan), 125
- -effect of heat damage on physical dough properties (Wang et al), 625
- —frozen, influence of sodium caseinate and whey protein on rheology (Kenny et al), 458
- —mixing and resting; changes in SDS solubility of glutenin polymers (Aussenac et al), 39
- —nondeveloped, partially developed, and developed, properties of (Lee et al), 447
- -rheology; effect of gluten proteins (Antes and Wieser), 157
- —wheat flour, bread quality relationship with rheological measurements of (Autio et al), 654
- —wheat flour, fortified with wheat gluten, farinograph responses for (Robertson and Cao), 538
- —wheat flour, measurement of dough stickiness in 1BL/1RS translocated soft wheat flours (Schwarzlaff et al), 93

Drying

- —effect on sensory profile of germinated oat (Heiniö et al), 707
- effects on functional changes during rough rice storage (Pearce et al), 354
 Dry-milling, of corn, influence of temper duration and weight distance on sys-
- tem output (Mehra and Eckhoff), 222

Electrophoresis

- —capillary, for separation and quantification of HMW glutenin subunits (Zhu and Khan), 737
- -SDS-PAGE of glutenin proteins (Zhu and Khan), 125
- ELISA, for discriminating gliadin and glutenin subunit alleles in hexaploid wheat (Partridge et al), 294
- Environment, effect on glutenin protein composition (Zhu and Khan), 125 Enzyme, inhibitor; of xylanases, purification and characterization from barley (Goesaert et al), 453

Enzymes

- detection of wheat preharvest sprouting using a pregelatinized starch substrate and centrifugation (Donelson et al), 282
- -transglutinase, effects of, on dough rheology (Köksel et al), 26

Errata

- -vol. 77, no. 4, pp. 512-517, 373-374
- -vol. 77, no. 5, pp. 607-614, 105

Extrusion

- —of maize grit, maize flour, wheat flour, and wheat semolina (Carvalho and Mitchell), 342
- -of plant protein and petroleum-based packaging sheets (Obuz et al), 97
- -of rice flour; functional and digestive characteristics (Bryant et al), 131

Falling number

-in rye meal suspensions (Repeckiene et al), 193

- —sample weight; effects on prediction of α -amylase activity (Finney), 485 Fatty acyl amides, starch granule accessibility to (Gray and BeMiller), 236
- —coarse, effect of corn milling on aleurone layer cells and their phytosterols (Singh et al), 436
- -corn, preparation of gel (Inglett and Carriere), 471
- —com oil, alternative milling technique effect on yield and composition of (Singh et al), 46
- resistant total dietary, of Oatrim muffins with different levels of amylose, amylopectin, and β-glucan (Li et al), 387
- -soluble, production of high-quality pasta with (Ingelbrecht et al), 721
- —wheat bran, digestibility and gastrointestinal measurements in rat (Kahlon et al), 481
- —of wheat bread; bran fermentation effect on quality and microstructure of (Salmenkallio-Marttila et al), 429
- Flavor, categorizing rice cultivars based on (Bett-Garber et al), 551

Flour

- benzoyl peroxide, bleaching effect of fat and lipase on carotene degradation (Mercier and Gélinas), 36
- -bug-damaged, effects of transglutinase enzyme on (Köksel et al), 26
- —corn, made from nixtamalized corn and dehydrated (Martínez et al), 107
 —nixtamalized corn, analytical techniques for understanding particle size and
- functionality relations (Sahai et al), 14
 —quality; effect of multiple substitution of glutenin and gliadin proteins (Wesley
- et al), 69
 —strength effect on dough aeration during mixing (Campbell et al), 272
- —wheat for tortillas, starch damage effects on texture (Mao and Flores), 286
- wheat, two endoxylanases for understanding arabinoxylan functionality in breadmaking (Courtin et al), 564
- Fluorescence, approach; surface properties of gluten investigated by (Sironi et al), 476
- Foam, forming capacity of water-soluble rye proteins (Meuser et al), 50
- Folate, changes in native folate levels during breadmaking (Osseyi et al), 375 Folic acid, changes in concentration of added, during breadmaking (Osseyi et al), 375
- FT-Raman spectroscopy, benzylated starch analysis (Phillips et al), 629 Functional properties, of starch from Argentinean corn (Seetharaman et al), 379
- Functional properties, of starch from Argentinean corn (Seetharaman et al), 37 Functionality, changes during rough rice storage (Pearce et al), 354

Gelatinization, temperature of rice; quantitative genetic basis of (Tan et al), 666 Germ, corn oil, alternative milling technique effect on yield and composition of (Singh et al), 46

Glass transition, temperature

- —of maize and wheat extrudates at various water contents by DMTA (Carvalho and Mitchell), 342
- -Tg of starch (Toto-Vazquez and Gómez-Aldapa), 543

Gliadin

- -contribution to functional properties of wheat flour dough (Uthayakumaran et al), 138
- —ELISA for discriminating different alleles in hexaploid wheat (Partridge et al), 294
- —protein; multiple substitution effect of, on Canada Prairie Spring wheat flour quality (Wesley et al), 69

β-Glucan

- —germination process for producing; whole grain food ingredients from oat (Wilhelmson et al), 715
- -solubilization of (Kanauchi and Bamforth), 121
- Glutelins, reoxidation of subunits (Antes and Wieser), 8

Gluten

- -proteins; sonication to probe structure (Singh and MacRitchie), 526
- -proteins; wheat gliadin and glutenin proteins (Bean and Lookhart), 608
- —and starch blends, influence of amylose content on wheat starch properties and breadmaking qualities of (Lee et al), 701
- -surface properties of, fluorescence approach (Sironi et al), 476
- wheat, farinograph responses for wheat flour dough fortified with (Brites and Carrillo), 59

Glutenin

- -effect of environment on composition (Zhu and Khan), 125
- —HMW and LMW subunits, reoxidation, effect on dough rheology and bread volume (Antes and Wieser), 157
- -polymers; changes in SDS solubility of, during dough mixing and resting (Aussenac et al), 39
- —protein; multiple substitution effect of, on Canada Prairie Spring wheat flour quality (Wesley et al), 69
- -sonication to probe structure (Singh and MacRitchie), 526
- -subunits; ELISA for discriminating different alleles in hexaploid wheat (Partridge et al), 294
- —subunits of wheat, preparative method for in vitro production of functional polymers from (Beasley et al), 464

- —wheat, biochemical, genetic, and molecular characterization of (Gianibelli et al), 635
- Grain sorghum, hybrids; sensory characteristics of, for potential human food use (Brannan et al), 693
- High molecular weight, and LMW glutenin subunits; controlled by Glu-1 and Glu-3 loci on durum wheat quality (Brites and Carrillo), 59
- High-amylose, maize starch; preparation temperature effect on gelation and molecular structure of (Vesterinen et al), 442
- High-performance capillary electrophoresis, method using a narrow bore glass capillary and an electric field to separate components in solution (Bean and Lookhart), 530
- HMW, glutenin subunits; separation and quantification by capillary electrophoresis (Zhu and Khan), 737

HPLC

- -determination of folates in bread (Osseyi et al), 375
- -isolation of polar lipid classes from wheat flour extracts by (Papantoniou et al), 663
- Hybrid, of popcorn, effect on expansion volume (Tian et al), 578
- Hydrothermal processing, to degrade phytate; heat and moisture for (Bergman et al), 144
- Hydrothermal treatment, of high-amylose maize starch; boiling-stable granular resistant starch produced by (Brumovsky and Thompson), 680

Image analysis

- -of crumb grain; quantification of crumb structure (Zghal et al), 1
- —noninvasive technique for studying the relationships among grain size and shape descriptors and semolina yield (Novaro et al), 217

Instructions to authors, iv

Lipid

- -classes, isolation of from wheat flour extracts by preparative HPLC (Papantoniou et al), 663
- -oxidation and dough bleaching (Mercier and Gélinas), 36

Maize (see also Corn)

- —high-amylose starch, partial acid hydrolysis and hydrothermal treatments of, for production of boiling-stable granular resistant starch (Brumovsky and Thompson), 680
- -hulls; cellulosic fiber gels prepared from cell walls of (Inglett and Carriere), 471
- project; Germplasm Enhancement of Maize, wet-milling properties used in (Singh et al), 330
- proteins extracted by SDS and separated by capillary electrophoresis (Bean et al), 84
- —starch; chemical and physiochemical properties of after nixtamalization (Toto-Vazquez and Gómez-Aldapa), 543
- -tempering effect on throughput and product yields (Mehra et al), 210
- —thermal and pasting properties and starch gel recovered from accessions in germplasm enhancement of (Singh et al), 315
- -zein protein funcionality (Bugusu et al), 31
- Malt, barley extract, dilution with corn syrup (Peterson et al), 349 Methods
- -capillary electrophoresis, separation of sugars (Doner and Johnston), 200
- —microsatellite in rice waxy gene to determine amylose class (Bergman et al), 257
- —preparative, for in vitro production of functional polymers from (Beasley et al), 464
- —rapid, for milled rice surface total lipids and free fatty acids (Lam and Proctor), 498
- Microscopy, using laser scanning confocal microscopy to examine protein network in dough (Lee et al), 447

Milling

- -degree of effects on rice pasting properties (Perdon et al), 205
- -effect of on RVA profile of starch products (Becker et al), 166
- —fractions; activity and inhibition of polyphenol oxidase in bran and shorts (Okot-Kotber et al), 514
- Mixing, characterization of wheat dough using a conventional mixer (Hwang and Gunasekaran), 88
- Mixograph, prediction of baking characteristics, continuum regression (Chung et al), 493

Moisture

- -parameter analyzed in wheat and barley (Büchmann et al), 572
- Multiangle laser light scattering, technique used to determine absolute molecular weight of components in solution by measuring laser light scattering at multiple angles from incident laser (Bean and Lookhart), 608
- Near-infrared reflectance, analysis for prediction of cooked rice texture (Champagne et al), 358
- Near-infrared transmission, analytical technique used for determination of

- moisture and protein in cereals (Büchmann et al), 572
- Near-isogenic wheat lines, to determine protein composition-functionality relationships (MacRitchie and Lafiandra), 501
- NIR spectrometer, as granulation sensor for first-break ground wheat (Pasikatan et al), 730

NIR spectroscopy

- -classification of heat-damaged wheat (Wang et al), 625
- Nitrogen, application; effect on storage protein composition and breadmaking quality (Johansson et al), 19

Nixtamalization

- -alkali-temperature process for maize (Toto-Vazquez and Gómez-Aldapa), 543
- -of white Mexican corn hybrids for tortilla production (Sahai et al), 116
- —process to make tortillas in which whole corn is cooked in lime water and steeped (Martínez et al), 107
- NMR, to determine correlation between starch retrogradation and water mobility (Lin et al), 647

Noodles

- —effect of starch properties on white salted quality, relationships in Japanese wheat flours (Noda et al), 395
- -sorghum starch (Beta and Corke), 417

Ont

- -antioxidants (Dimberg et al), 278
- -dehulling; optimizing conditions for (Doehlert and McMullen), 675
- -effect on sensory profile of germinated (Heiniö et al), 707
- -extract containing high levels of β-glucan (Li et al), 387
- —germination process for producing high β-glucan, whole grain food ingredients from (Wilhelmson et al), 715
- -oil, application of in breadbaking (Erazo-Castrejón et al), 243
- physical, chemical, and sensory parameters of grains, groats, rolled oats and oatmeal; cultivar and year effects (Lapveteläinen et al), 322
- —proteinases of germinated avenin hydrolyzing enzymes (Mikola et al), 55 Oxidation, glutelin subunits KBrO₃ and KlO₃ (Antes and Wieser), 8

Packing fraction, of granules from various starches (Willett), 64

- Pasta, processing; influence of arabinoxylans and endoxylanases on (Ingelbrecht et al), 721
- Physical properties, of popcorn, effect on expansion volume (Tian et al), 578
- Phytate, antinutrient that chelates minerals (Bergman et al), 144
 Polyphenol oxidase, discoloring enzyme in wheat-based foods (Okot-Kotber

Popcorn

- expansion volume affected by hybrid and physical properties of (Tian et al), 578
- Power consumption, used to determine dough mixing characteristics (Hwang and Gunasekaran), 88

Protease

- —digestion at neutral pH; comparison with alkaline steeping method for rice starch isolation (Wang and Wang), 690
- —to reduce steep time and SO₂ requirements during corn wet-milling (Johnston and Singh), 405

Protein

- -categorizing rice cultivars based on (Bett-Garber et al), 551
- —composition of storage proteins in sorghum (Hicks et al), 412
- —composition-functionality in near-isogenic wheat lines (MacRitchie and Lafiandra), 501
- —content of milled rice; by NIR-FT/Raman spectroscopy (Himmelsbach et al), 488
- -effect of drying on protein determination (Wang et al), 625
- -extraction of maize and sorghum proteins with SDS (Bean et al), 84
- -formation of protein matrix during dough development (Lee et al), 447
- -parameter analyzed in wheat and barley (Büchmann et al), 572
- —wheat seed, spiral structure present in, molecular modeling of (Parchment et al), 658
- Proteinases, of germinated oats; which hydrolyze avenins and oat prolamins (Mikola et al), 55

Rheological properties

- —of high-amylose maize starch, preparation temperature effect (Vesterinen et al), 442
- -of maize fiber gel (Inglett and Carriere), 471

Rheology

- -of crumb grain; relationship to structure (Zghal et al), 1
- —of frozen dough; influence of sodium caseinate and whey protein (Kenny et al), 458
- -of gluten from diploid, tetraploid, and hexaploid wheat (Hsam et al), 521
- —relationships between rheological properties and microstructural characteristics of doughs (Lee et al), 447
- -rye meal suspensions (Repeckiene et al), 193

- -studies of bug-damaged dough, effect of transglutinase enzyme on dough properties (Köksel et al), 26
- -wheat dough, extensigram (Antes and Wieser), 157
- -of wheat gluten suspensions (Xu et al), 181

Rice

- -cultivars; categorizing (Bett-Garber et al), 551
- -degree of milling; sensory properties of cooked rice and physicochemical properties of milled and cooked rice (Park et al), 151
- -expansion of extruded pellet (Chen and Yeh), 261
- -extruded flour, functional and digestive characteristics (Bryant et al), 131
- -functional changes during storage (Pearce et al), 354
- -gelatinization temperature of, quantitative genetic basis of (Tan et al), 666
- -method for amylose class (Bergman et al), 257
- -milled, protein and apparent amylose contents of, by NIR-FT/Raman spectroscopy (Himmelsbach et al), 488
- -milled, rapid methods for surface total lipids and free fatty acids (Lam and
- -pasting properties; effect of degree of milling (Perdon et al), 205
- -starch isolation; alkaline steeping method for, protease digestion at neutral pH compared (Wang and Wang), 690
- -starch, molecular and gelatinization properties (Lai et al), 596
- -texture, cooked; NIR analysis for prediction of (Champagne et al), 358
- -texture; prediction using extrusion test with partial least squares regression and artificial neural network (Sitakalin and Meullenet), 391

Rye

- -HMW glutelin subunits, reoxidation (Antes and Wieser), 8
- -meal suspension; rheology of (Repeckiene et al), 193
- -predictive models for optimization of phytate degradation (Bergman et al), 144
- water-soluble proteins, foam-forming capacity of (Meuser et al), 50

SCIRA, detecting corn syrup on barley malt extract (Peterson et al), 349

SDS, use of to extract maize and sorghum proteins (Bean et al), 84

Self-assembly, starch granule structure (Donald), 307 Semolina

- -quality; break-roll differential effect on quality (Manthey and Hareland), 368
- -yield, a noninvasive method to predict (Novaro et al), 217
- Shortening, replacer; by corn dextrins in yellow layer cakes (Kim et al), 267 Size-exclusion chromatography, separation of components by size using chro-
- matographic supports (Bean and Lookhart), 608 Sonication, of wheat gluten to probe structure (Singh and MacRitchie), 526
- -analysis of kafirin composition and feed quality traits (Hicks et al), 412
- -composite flour bread (Bugusu et al), 31
- -high protein digestibility mutant (Aboubacar et al), 160
- -proteins extracted by SDS and separated by capillary electrophoresis (Bean et al), 84
- -starch; genetic diversity (Beta et al), 583
- -starch, steeping treatment effect on pasting and thermal properties of (Beta et al), 303
- -starch noodles (Beta and Corke), 417
- Spaghetti, quality; break-roll differential effect on quality (Manthey and Hareland),
- Staling, bagels; effect of additives and storage temperature on (Lent and Grant), 619

Starch

- -benzylated, FT-Raman analyis (Phillips et al), 629
- -boiling-stable granular resistant, produced by partial acid hydrolysis and hydrothermal treatments of maize starch (Brumovsky and Thompson), 680
- -and by-products; from a barley starch isolation procedure (Andersson et al), 507
- -conversion; of maize and wheat extrudates by DSC, X-ray, and Rapid Visco Analyser (Carvalho and Mitchell), 342
- damage; effect on wheat flour tortilla texture (Mao and Flores), 286
- -degradation by α-amylase in bread (Hug-Iten et al), 421
- -detection of wheat preharvest sprouting using a pregelatinized starch substrate and centrifugation (Donelson et al), 282
- evaluation of conversion using DSC, alkaline viscosity, and RVA (Becker et al), 166
- -gel; recovered from accessions in germplasm enhancement of maize, thermal and pasting properties (Singh et al), 315
- -gelatinization; swelling of starch granules and melting of starch strucure
- (Toto-Vazquez and Gómez-Aldapa), 543 -and gluten blends; influence of amylose content on wheat starch properties and breadmaking quality of (Lee et al), 701
- -granule; plasticization and self-assembly in (Donald), 307
- granule reaction sites (Huber and BeMiller), 173
- -granules; accessibility of (Gray and BeMiller), 236
- granules; packing characteristics (Willett), 64
- -method for rice amylose class (Bergman et al), 257

- -noodle quality (Beta and Corke), 417
- -protein interactions (Bloch et al), 74
- -relation to white salted noodle quality in Japanese wheat flours (Noda et al), 395
- resistant, of Oatrim muffins with different levels of amylose, amylopectin, and B-glucan (Li et al), 387
- -retrogradation; water mobility correlation, determined by DSC and NMR (Lin et al), 647
- rice, molecular and gelatinization properties, effect of amylose content (Lai et al), 596
- -sorghum, genetic diversity (Beta et al), 583
- -sorghum, steeping treatment effect on pasting and thermal properties of (Beta et al), 303
- thermal and functional properties from Argentinean corn (Seetharaman et al), 379
- -waxy and nonwaxy durum wheats, characteristics of (Grant et al), 590
- -wheat, effect of glass transition, gelatinization, and retrogradation (Jang et
- Steep water, corn, membrane filtration of (Rane and Cheryan), 400
- Steeping, time; proteases to reduce (Johnston and Singh), 405

- -protein composition; wheat cultivar and nitrogen application effects on (Johansson et al), 19
- rough rice, effects of postharvest parameters on functional changes (Pearce et al), 354
- Sugar, effect on expansion indices, specific mechanical energy, glass transition temperature, and starch conversion of maize and wheat extrudates (Carvalho and Mitchell), 342
- Surfactants, effect on dough aeration and proofing rate (Campbell et al), 272

Temperature

- -effect on rice color and viscosity (Dillahunty et al), 559
- -gelatinization, rice, quantitative genetic basis of (Tan et al), 666

- -maize, effect on throughput and product yields (Mehra et al), 210
- -process of adding water to corn kernel to make pliable embryo (Mehra and Eckhoff), 222

Texture

- -categorizing rice cultivars based on (Bett-Garber et al), 551
- -cooked rice, NIR analysis for prediction of (Champagne et al), 358
- -cooked rice; prediction using extrusion test with partial least squares regression and artificial neural network (Sitakalin and Meullenet), 391
- -creep-recovery of bread, correlation to sensory measurements of (Carson and Sun), 101
- -wheat flour tortillas, starch damage effects on (Mao and Flores), 286
- Thermal properties
- -of starch from Argentinean corn (Seetharaman et al), 379
- -of starches recovered from accessions in germplasm enhancement of maize (Singh et al), 315

Tortillas

- -flat and rounded cooked cakes made from nixtamalized corn (Martínez et al), 107
- -nixtamalization of white Mexican corn hybrids for production of (Sahai et al),
- -wheat flour, starch damage effects on texture (Mao and Flores), 286

Viscosity

- -effect of milling on apparent viscosity as shown by RVA (Becker et al), 166
- -of maize fiber gel (Inglett and Carriere), 471
- -measurement of starch (Dillahunty et al), 559
- Water mobility, starch retrogradation correlation, determined by DSC and NMR (Lin et al), 647

Wet-milling

- -corn; effect on aleurone layer cells and their phytosterols (Singh et al), 436 corn, proteases to reduce steep time and SO₂ requirements (Johnston and
- Singh), 405 -effect on yield and composition of corn germ oil and corn fiber oil (Singh et al), 46
- -properties; of accessions used in Germplasm Enhancement of Maize project (Singh et al), 330
- -properties; heterosis in, of corn crosses (Singh et al), 336

- -bread; bran fermentation effect on quality and microstructure (Salmenkallio-Marttila et al), 429
- detection of wheat preharvest sprouting using a pregelatinized starch substrate and centrifugation (Donelson et al), 282
- for discriminating gliadin and glutenin subunit alleles in hexaploid (Partridge et al), 294

- —dough stickines in 1BL/1RS and non-1BL/1RS soft wheat flours (Schwarzlaff et al), 93
- —durum, break-roll differential effect on semolina and spaghetti quality (Manthey and Hareland), 368
- —durum, HMW and LMW glutenin subunits controlled by Glu-1 and Glu-3 loci on (Brites and Carrillo), 59
- -durum, a noninvasive method to predict semolina yield in (Novaro et al), 217
- —durum and bread, surface properties of gluten, fluorescence approach (Sironi et al), 476
- -durum starch, characteristics of waxy and nonwaxy (Grant et al), 590
- -endosperm compressive strength; rapid prediction (Osbourne et al), 142
- enzymes; activity and inhibition of polyphenol oxidase in bran and shorts (Okot-Kotber et al), 514
- —falling number sample weight effects on prediction of α -amylase activity (Finney), 485
- —first-break ground, NIR spectrometer as granulation sensor for (Pasikatan et al), 730
- —flour, effect of L-cysteine on rheological properties of (Lambert and Kokini), 226
- 22.00 —flour; effect of starch properties on white salted noodle quality in (Noda et al), 395
- —flour dough; bread quality relationship with rheological measurements of (Autio et al), 654
- —flour dough; fortified with wheat gluten, farinograph responses for (Robertson and Cao), 538
- -flour extracts; isolation of polar lipid classes from, by preparative HPLC

- (Papantoniou et al), 663
- -glutenin; biochemical, genetic, and molecular characterization of (Gianibelli et al), 635
- —glutenin subunits of, preparative method for in vitro production of functional polymers from (Beasley et al), 464
- -HMW and LMW subunits, reoxidation (Antes and Wieser), 8
- —predictive models for optimization of phytate degradation in (Bergman et al), 144
- quality traits; cultivar-by-environment interactions for, in semiarid conditions (Mladenov et al), 363
- -starch; effect of glass transition, gelatinization, and retrogradion (Jang et al),
- -starch; influence of amylose content on (Lee et al), 701
- use of near-isogenic wheat lines to determine composition-functionality relationships (MacRitchie and Lafiandra), 501
- Wheat bran
- -fiber; digestibility and gastrointestinal measurements in rat (Kahlon et al), 481
- -mechanical properties (Mabille et al), 231
- Xylanase, inhibitor; purification and characterization from barley (Goesaert et al), 453

Yellowing, quality defect and discoloration of rice grains (Dillahunty et al), 559

Zein, viscoelastic fibril formation (Bugusu et al), 31